

4.0 AFFECTED ENVIRONMENT

In Chapter 4, the affected environment descriptions provide the context for understanding the environmental consequences described in Chapter 5. They serve as a baseline from which any environmental changes brought by implementing the proposed action can be evaluated; the baseline conditions are the currently existing conditions. The affected environment at Los Alamos Site, Nevada Test Site (NTS), Pantex Site (Pantex), Savannah River Site (SRS), and the Carlsbad Site are described for the following impact areas: land use, visual resources, site infrastructure, air quality and noise, water resources, geology and soils, biological resources, cultural and paleontological resources, socioeconomics, radiation and hazardous chemical environment, transportation, and waste management.

4.1 INTRODUCTION

In accordance with the Council on Environmental Quality (CEQ) under the *National Environmental Policy Act* (NEPA) regulations (40 *Code of Federal Regulations* [CFR] 1500-1508) for preparing an environmental impact statement (EIS), the affected environment is “interpreted comprehensively to include the natural and physical environment and the relationship of people with the environment.” The affected environment descriptions presented in this chapter provide the context for understanding the environmental impacts described in Chapter 5. They serve as a baseline from which any environmental changes brought about by implementing the proposed action can be evaluated; the baseline conditions are the currently existing conditions.

For this EIS, the five candidate sites for the construction and operation of the Modern Pit Facility (MPF) are the Los Alamos Site, NTS, Pantex Site, SRS, and the Carlsbad Site. The affected environment is described for the candidate sites for the following resource areas: land use, visual resources, site infrastructure, air quality and noise, water resources, geology and soils, biological resources, cultural and paleontological resources, socioeconomics, radiation and hazardous chemical environment, transportation, and waste management. The level of detail presented varies depending on the potential for impacts on a particular resource as result of the MPF.

Recent site-specific, project-specific, resource-related environmental documents, relevant laws and regulations, and site environmental reports, were used in describing the existing environment at each of the candidate sites. These documents are cited as appropriate. A listing of the information and references used to develop this chapter and the EIS is included in Chapter 8, References.

The U.S. Department of Energy (DOE) evaluated the environmental impacts of the construction and operation of the MPF within defined regions of influence (ROIs) at each of the candidate sites and along potential transportation routes. The ROIs are specific to the type of effect evaluated, and encompass geographic areas within which any significant impact would be expected to occur. Detailed descriptions of the ROIs and the method used to evaluate the impacts on each environmental resource are presented in Appendix F, Methodology.